

www.mexicon.de

B 11348 F

# mexicon

Zeitschrift für Mesoamerikaforschung

Journal of Mesoamerican Studies – Revista sobre Estudios Mesoamericanos

Vol. XLVI

Februar 2024

Nr. 1



# Contents

mexicon XLVI (1)

## Cover

Ivan Urdapilleta Caamal

*Nunkiní, Campeche y sus osos en carnaval* 1–3

## News

3–4

## Contribution

Felix Kupprat, Nicholas P. Dunning, Armando Anaya Hernández, Jeffrey Brewer, Shane Montgomery, Christopher Carr, and Kathryn Reese-Taylor

*A New Captive Panel from Aguada 2 at Calakmul* 5–13

Rebecca J. Appert and E. Cory Sills

*Sourcing of Obsidian from the Late Postclassic Site of Placencia Village, Belize* 13–20

## Recent Publications

Periodicals 21–24

## Impressum

24

## Cover

### Nunkiní, Campeche y sus osos en carnaval

Ataviados con un traje elaborado con costales de henequén, cencerros atados a la cintura, hojas de palma o piel de venado sobre la espalda y una máscara, los osos de Nunkiní constituyen el principal elemento identitario durante la celebración del carnaval en este poblado ubicado al norte del Estado de Campeche, México, que visité en los primeros días de febrero de 2023 (Portada).

Hace unos cien años un circo, itinerante en la región, llegaba al pueblo periódicamente para ofrecer un entretenimiento propio de la época. Los pobladores de Nunkiní refieren que en una de estas visitas, el circo presentó un número en el que el domador de leones, para variar el espectáculo, empleó un oso, o más bien a un personaje que con disfraz de terciopelo negro simulaba los ruidos y el comportamiento de un oso.

Con el tiempo, a la celebración del carnaval, se añadieron a un par de comparsas un oso y su guardián golpeador y en la década de los cuarenta del siglo pasado se integró la contraparte femenina. Los siguientes fueron los niños osos, como hijos de la pareja, y así, sucesivamente, diversos miembros de la familia de osos que enriquecieron e incrementaron el número de estos personajes integrando las comparsas (Suárez Chi 2004).

Otra versión sobre el origen de los osos se configura como una tradición quizás inventada (en términos de Hosbsbawn 1984: 1) o bien apropiada, que retoma los elementos de estructura/desestructura propios del carnaval. En un reportaje periodístico, Jairo Magaña (2020) señala que los mayas sólo podían beber licor públicamente en épocas de carnaval. Este era proporcionado por hacendados a precios costosos por los que algunos lo robaban y de ser descubiertos eran castigados.

Esta remembranza se traslada al contexto de la Guerra de Castas, en la que los “esclavos mayas” para no ser identificados confeccionaron los trajes y para soportar los fustes de los sus “amos hacendados” utilizaban la piel de venado a manera

de escudo. De esta manera, portando estos trajes irrumpían en las haciendas y las saqueaban.

Al no contar siempre con terciopelo en el pueblo, usan los materiales disponibles a mano: costales de henequén empleados para almacenar frijol y maíz son la materia prima con el que confeccionan sus trajes de oso y para cubrirse la cabeza utilizan a un sabucán que es una bolsa del mismo material de menor tamaño. Al ser el henequén una fibra incómoda de vestir, recurren a diversos tipos de máscaras para protegerse la cara de la picazón por los roces con el sabucán, siendo las de luchadores las más populares. Para hacer más llevadera la incomodidad y el calor que el traje les genera, los osos mayores consumen ron u otros licores.

A la cintura amarran una cuerda con campanas o cencerros para llamar la atención y para que el domador pueda tener control sobre el oso cuando la cuerda no está atada al dorso o cuello. Parte de la escenificación implica azotar al oso con un látigo. Para protegerse de los impactos, al traje le añaden una piel de venado sobre la espalda, aunque no siempre se puede contar con ésta y la alternativa suelen ser palmas de huano o coco.

De esta manera y con estos peculiares trajes, las personas de Nunkiní se transfiguran hacia una identidad osuna para participar en las fiestas del carnaval que, durante la semana previa al miércoles de ceniza, consisten desfiles que se llevan a cabo tanto en los barrios como en el centro del poblado. Durante estas fiestas, la gente se disfraza de día y de noche para presentarse en los bailes de comparsas y en las coronaciones de reinas del carnaval. Así, los pobladores, los osos y demás disfrazados participan en el ambiente festivo que define las actividades del carnaval, antes de la Cuaresma (Fig. 1).

Texto y fotografías: Ivan Urdapilleta Caamal (Universidad Autónoma de Campeche, igurdapi@uacam.mx).



Figura 1. Un joven “oso” pasa el tiempo hasta su actuación. Foto: I. Urdapilleta Caamal, 2023.

## A New Captive Panel from Aguada 2 at Calakmul

Felix Kupprat, Nicholas P. Dunning, Armando Anaya Hernández, Jeffrey Brewer, Shane Montgomery, Christopher Carr, and Kathryn Reese-Taylor

During our field season in Calakmul in June 2022, Nicholas Dunning made an unexpected find while walking along the rim of a square reservoir, north of the Great Acropolis. Among several large slabs of cut limestone sticking out of the ground, one showed signs of a weathered glyph block and the much larger outlines of accompanying bas-relief imagery. Subsequent excavations revealed the carving of a body of a male captive, lying on his side, with the arms tied in front of his chest, and traces of at least three carved glyph blocks pertaining to a caption (Fig. 1). The bas-relief was carved on a flat panel of solid limestone and was likely integrated into a monumental masonry façade before it was finally reused in the construction of the reservoir wall. The new panel is far from the only representation of a captive at Calakmul, but it is the first complete monumental carving in this specific format at the site.

### The archaeological context

Calakmul Aguada 2 was registered during the first systematic documentation of the site's settlement in the 1980s (Domínguez Carrasco and Folan 1996: 150; Folan *et al.* 2001:

31–34). It is an artificially squared in-*bajo* reservoir located 250 m northwest of the edge of the Great Acropolis (Fig. 2) and measures c. 140 m on each side. In the present-day, Aguada 2 is variously fed by and drains into an irregular, mostly natural channel known as the Tomatillo *corriental* running from the even larger Aguada 1, over 1.1 km to the north, passing by the northwest corner of Aguada 2 into the Laberinto



Figure 1. Composite raking light photograph of the new captive panel from Calakmul.

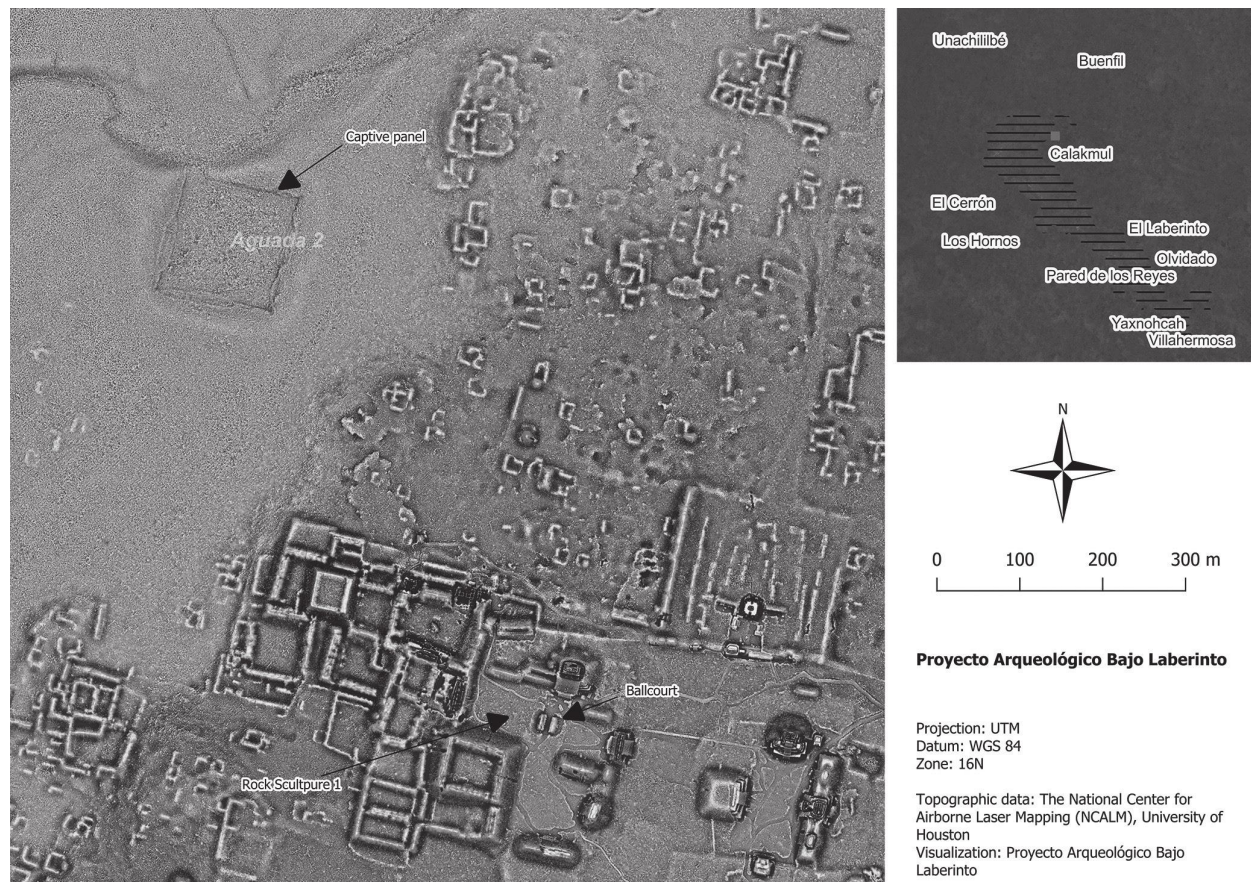


Figure 2. Location of Calakmul Aguada 2 and the captive panel.

wetland. Aguada 2 was almost certainly the principal water source for the western sector of the site core.

The floor of Aguada 2 was carefully laid out with a horizontal layer of large and medium-sized sherds and then covered with limestone slabs and sealed with compacted clay, a construction technique previously documented at the nearby site of Uxul (Grube *et al.* 2012: 37–44; Seefeld 2017: 344–379). A wall of vertically stacked, flat limestone blocks was constructed along the interior periphery, a feature that is readily visible on the surface in many places around the *aguada* (Fig. 3). Many of the blocks resemble the massive elongated, flat stones used for the construction of walls and



Figure 3. The stone wall surrounding Aguada 2 and the captive panel, visible on the current surface before excavation.

vaults in the large structures of the site center, and we assume that the wall materials were obtained by dismantling one or several large buildings, possibly in the Great Acropolis, since it is the closest group with abundant monumental architecture. The reservoir and its wall are surrounded by a clearly defined, mostly earthen berm with a width of *c.* 60 m and a height between 3 and 5.5 m as measured from the current ground level in the reservoir center (Fig. 4). Initial AMS analyses of charcoal and soil samples recovered during the excavations suggest that the initial construction of the earthen berm goes back possibly as early as the Middle Preclassic (545–394 cal BC, 95.4% probability) and that Aguada 2 was maintained at least until the Terminal Classic (770–892 cal CE, 85.9% probability).

The technique of vertically stacked slabs to form a reservoir wall closely resembles an interior wall documented within Aguada Mucal in Yaxnohcah, 20 km southeast of Calakmul Aguada 2 (Chmilar and Dunning 2019: 171–186). Radiocarbon dates recovered from the reservoir sediments in front of the wall correspond to the Early and Late Postclassic period (900–1521 CE), while dates from a different unit in the exterior earthen berm of the Mucal reservoir are from the Preclassic (1000 BCE–200 CE) and Early Classic (200–600 CE). This indicates that the reservoir was maintained over many centuries and the wall feature might date to the Postclassic. However, at this point we do not have sufficient data to provide a definitive date for the construction of the stone wall surrounding Calakmul Aguada 2.

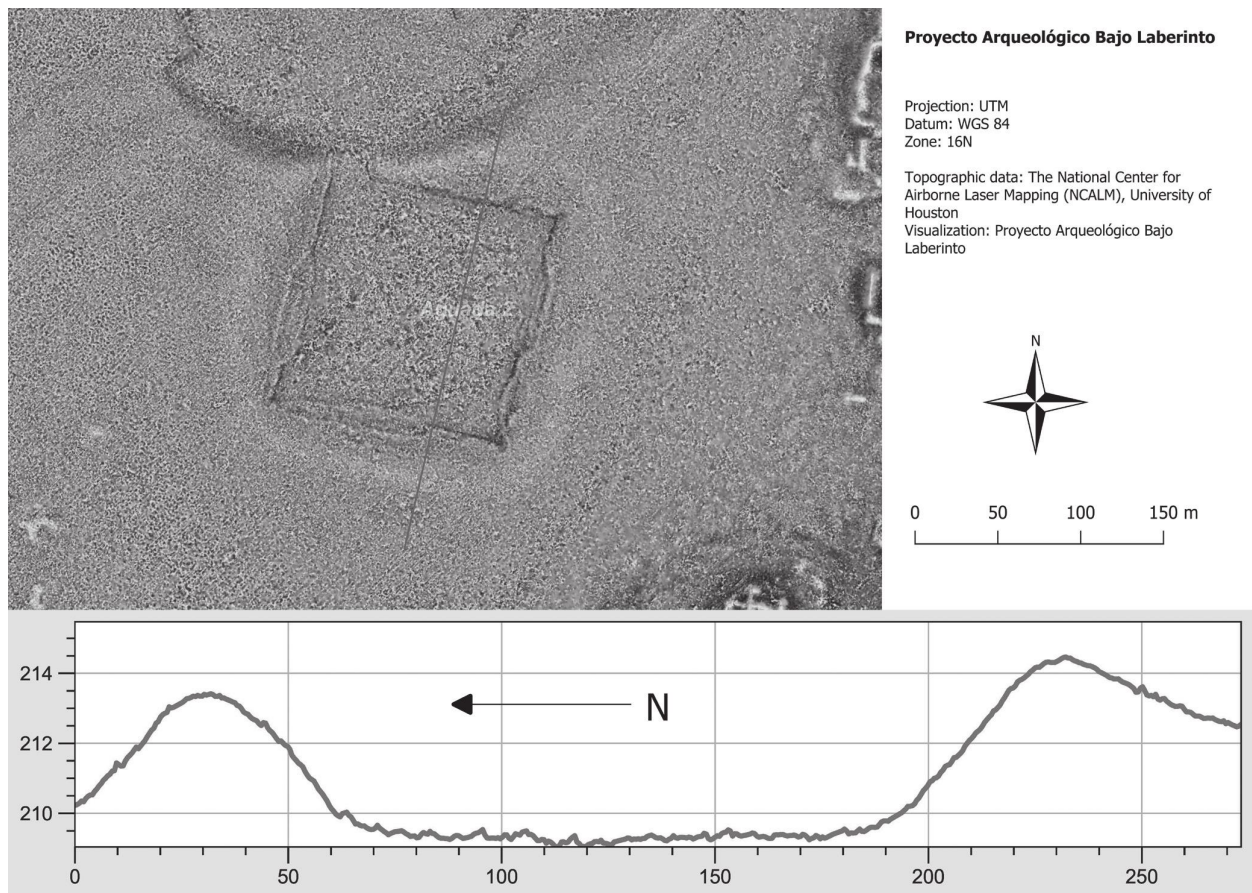


Figure 4. Elevation north-south profile of Aguada 2 and location of excavation units.

Excavations of the inner reservoir wall were conducted at three places on the north side of Aguada 2. The captive panel was found in the second row of vertical slabs, near the northeast corner of the reservoir (Fig. 5). Judging from the orientation of the monument and surrounding slabs, the mass of the berm has pushed the wall towards the center of the reservoir, resulting in irregularities in the original alignment. Few construction slabs maintain their original vertical position, while most of them, including the captive panel, have been partially or completely pushed over by the same slope movement of the earthen berm. The carving of the panel was largely obscured by the front row of slabs, so its communicative potential was drastically reduced once it was incorporated into the wall. It is possible, however, that the very top of the carved side, including the captive's head, still stuck out, serving as a lasting reminder of the once proudly exposed monumental sculpture of Calakmul. To preserve and study the carved monument, it was completely excavated and removed from its original location. It is currently sheltered in an on-site INAH storage facility.

#### The captive panel

The captive motif is quite common in Maya art and has been studied extensively on several occasions (Marcus 1974; Baudez and Mathews 1979; Baudez 2004; Houston *et al.* 2006: 202–226; Spencer 2015; Burdick 2016; Earley 2023). Captives were represented on various types of Maya monuments,

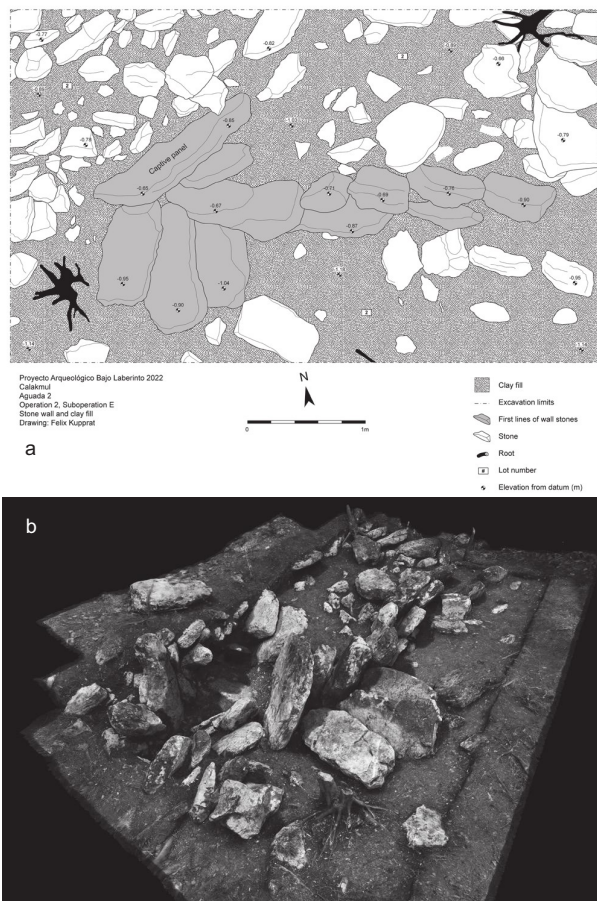


Figure 5. Excavation on the north side of Aguada 2. a) Plan drawing of excavation unit with wall feature; b) photogrammetric model of the wall feature.

including stelae, altars, stair risers, stone lintels, façade tablets, mural paintings, and rock art. There are also examples of captives that were represented on portable or wearable objects. At times, they are identified by name tags or longer accompanying texts, which shows that they were in many cases portraits of discrete historical actors (Baudez and Mathews 1979; Burdick 2016). Their incorporation into large format imagery or architectural spaces can frequently be interpreted as a discursive device used to emphasize the physical and, in a wider sense, military power of their captors or “guardians” (*cha'n*).

From the Early Classic onwards, rulers represented themselves standing on top of their captives, showing their oppressive force. The motif was probably inspired by ritualized public or semi-public captive humiliations, like those depicted in the murals of Bonampak (Miller 2002: 13–21; Miller and Martin 2004: 174). The East Courtyard of the Palenque palace, for instance, may have been designed as an arena in which Janaab Pakal and probably his successors oppressed war captives impersonating the war deity Balun Yookte' K'uh (Kupprat 2019). An integral study of the fifth and sixth platforms of the Tonina Acropolis suggests that this area was extensively used for ceremonial human sacrifice, possibly involving prior violence against war captives (Ruiz González 2021: 233–237). Elsewhere, those and other spectacles, including combat among captives, probably took place in diverse places, such as plazas and ballcourts (Taube and Zender 2009; Houston 2016).

At Calakmul, there is evidence of captive depictions in the bottom register of several of the known stelae, where individuals can be seen crouching below the feet or in front of the courtly main characters. Noticeable exceptions are Stela 115, a 7<sup>th</sup>-century architectural element discovered on Structure II (Marcus and Folan 1994: 21–22; Martin 2005: 4), which shows a lone kneeling captive on its front side, and a panel fragment reported by Simon Martin (1998: 96) that lacks a documented archaeological context. The latter features a crouching male pulling his knee towards his chest and a partially preserved glyphic caption. Its dimensions, general composition, and style show similarities with the recently discovered panel and it is easy to imagine that both originally formed part of the same sculptural program. Also, a dedicated space for the ritualized torture of captives may have existed in the western sector of the North Plaza of the Great Acropolis, between the ballcourt and Structure XX (Fig. 2). There, an outcrop of limestone is adorned with the carving of several bound individuals, a setting that would have provided a terrifying environment for public captive presentations (Houston *et al.* 2006: 225). If Aguada 2 was not the original location of the captive panel—a likely possibility—the monumental buildings surrounding the outcropping are good candidates for the original provenance of the new captive panel.

The Aguada 2 captive panel measures 155 cm in width by 94 cm in height, with a thickness of only 22 cm (Fig. 6). This format suggests that it was not (part of) a freestanding monument. Initially, we speculated that it was used as a stair riser, an emulation of the Early Classic captive stairway at Dzibilchanceu dedicated by the ancestors of the Late Classic (600–900 CE) Kanu'l rulers at Calakmul (Nalda 2004; Velásquez García 2004). However, the monument seems to be too tall and too rounded to sustain such a hypothesis, since only the

carved section, which would have been visible, measures 70 cm in height. Even considering the idea of a carved tread stone, it is probably too wide.

A possible parallel for the architectural interpretation of the panel comes from Nakum, where slightly smaller captive panels modeled from stucco were integrated into the façade of Structure G, flanking the central stairway (Žračka and Hermes 2012: 168). To some degree, this use is also reminiscent of the captive panels found in the Palace at Palenque, although there the circumscribed spaces are much more intimate (cf. Houston and Stuart 1998: 88; Spencer 2015; Kupprat 2019).

Given the lack of both an original architectural context and legible inscribed calendric information, dating the new captive monument from Calakmul is only possible based on stylistic traits. The head portion is badly weathered, but the outlines suggest a relatively fine rendering of a human face with a finely carved nose, eye and ear still visible. The body is carved on the rough and uneven surface of the slab maintaining relatively naturalistic proportions. Furthermore, the bas-relief background was not carved out in the lower portion of the panel, giving the impression that the captive is lying on a crude, rocky, undulated or slightly stepped surface.

The captive wears a loincloth assemblage, and his arms are bound with rope over his chest. Unusual is the representation of the hands, simply represented as ovaloid or pear-shaped elements, with no clear indication of individual fingers. This may be a stylistic means of indicating dehumanizing grotesqueness or simply the result of crude or unfinished craftsmanship. It is also possible that fingers were originally marked with shallow incisions that have faded over time. However, another option is to interpret the disproportionate bulges as boxing gloves or wraps, a reference to captive boxers who were forced to engage in fights, sometimes with the use of stone or shell weapons (Taube and Zender 2009; Houston 2016). The representation of boxing gloves is uncommon in Maya imagery, but a parallel can be found just south of the Maya area, in El Baúl Monument 27, dating to the Terminal Classic (Taube and Zender 2009: 198; fig. 7.6d).

One useful indicator for establishing a general date is the captive's posture. In Early Classic representations, captives frequently lie on their bellies, crouch with the stomach facing to the ground, or sit with an upright torso, but they do not lie on their backs. During the Late Classic there is notably more variation and dynamism in the representation of the bodies and, although still not common, there are parallels for captives lying on their backs or sides, such as Tonina, Monuments 27, 122, or 125, all Late Classic in date (Graham and Mathews 1996: 71, 1999: 153–154). In the same tradition, two of the captives on Tonina, Monument 143 position their legs in a fashion similar to that of the Calakmul figure (Graham et al. 2006: 74). An even more important parallel is the captive that was carved in the lower register of Edzna Stela 19 in 692, presumably an individual from Coba (Grube 2003: 360, Fig. 18). Resembling the Calakmul panel, the Edzna captive lies on his back, looks up and bends his right knee, hiding most of the left leg, which seems to be folded behind the right one to leave only the sole of the left foot visible. Another indicative gesture found on the Calakmul panel is the “crossed-arms-on-chest gesture”, analyzed by Baudez and Mathews (1979) as a mostly Middle and Late Classic and Early Postclassic motive associated in other sculptural contexts with “submissiveness,

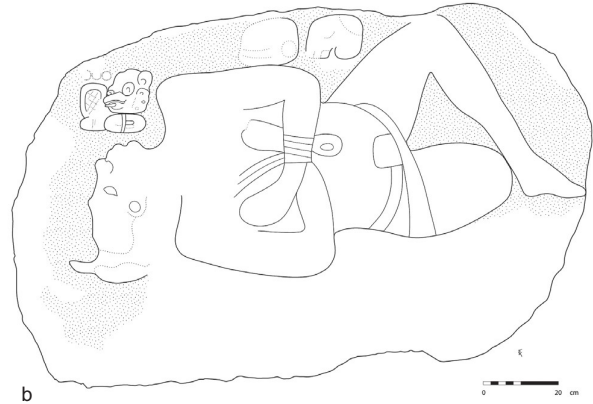


Figure 6. The new panel from Calakmul. a) Textured photogrammetric orthographic model, b) line drawing, c) modified red relief image map.

captivity and death”. This gesture is uncommon in Central Lowland captive depictions, but there are notable exceptions and points of comparison in the 8<sup>th</sup> century carvings on the steps of Tamarindito, Hieroglyphic Stairway 1 (Gronemeyer 2013: 76–77, Plates 26–28), where captives lying on their sides have similar bent knees and their hands tied together at the wrists in front of their torsos.

At least three glyph blocks accompany the captive portrait, but due to the state of conservation only one of them is partially legible. The first block is heavily damaged and the only visible features are a circular element near the bottom-right corner and one or maybe two horizontal lines. The second block has better preserved outlines and a diagnostic indentation in the center of the bottom edge. It is possible that the sign rendered the term **JOL**<sup>1</sup>, literally ‘skull’, a common element of personal names during the Classic period. Unfortunately, however, the preservation of this section is insuffi-



Figure 7. Maize god myths on codex style pottery. a/top) Confrontation scene with Earth Lords engaging the Maize god in waist-deep waters (K2011); b/bottom) a group of women and the Hero Twins attending to the Maize God in an aquatic environment (K6979) (photos: Justin Kerr)

cient to confirm this suspicion. The sequence contained in the third glyph block seems to be part of the same name and reads **3-pa-#-CHAK-ki**, possibly to be transcribed as *'Ux Pa[ta]n] Chaahk* and literally to be translated as 'Chaahk of three tributes'. Judging from other short inscriptions associated with captive representations elsewhere in the Maya world, the name probably belongs to either the captive himself or his guardian and appears to be unique in the corpus of Maya inscriptions.

Typologically, we are dealing with a name derived from a theonym (Houston and Stuart 1996: 295–296; Grube 2002: 334–339; Colas 2004: 73–76), specifically the name of the rain deity Chaahk. While we could argue that the base theonyms of personal names can show parentage-related tendencies of transmission, with the theonym Chaahk frequently forming the base of ruler names at specific sites, such as Naranjo (Grube 2002: 344–348; Colas 2004: 223–227), Chaahk-based names are attested in many other contexts all over the Maya area, both among rulers and non-rulers (cf. Colas 2004: 433). We do note, however, that the theonym Chaahk is completely absent from the list of known names of Kanu'l rulers (Martin 1997; Helmke and Awe 2016: 10–12; Martin and Grube 2008; Martin and Beliaev 2017), which makes it unlikely that the name referred to a local ruler or guardian. A far more convincing solution is to interpret the name as that of the captive himself, although we cannot make statements about his provenience or social status at this point.

In terms of paleographic dating, the preserved glyphs do not provide a lot of useful data. The temporally most distinctive feature is the presence of glyph T102, **ki**, which is infre-

quent during the Early Classic but shows ample distribution during the Late Classic (see Grube 1990). More importantly, here, the **ki** sign acts as a phonetic complement for **CHAK**. Phonetic complementation for theonymic logograms is rare during the Early Classic, but a common feature from the Late Classic onwards, and its presence in the text composition strengthens the initial stylistic dating to the Late Classic.

The presented evidence makes it plausible that the captive panel was part of a larger, Kanu'l-sponsored sculptural program of the 7<sup>th</sup> or early 8<sup>th</sup> century. The Dzibanche hieroglyphic stairway with its prominent captive depictions may have been a predecessor, but it is also true that captives were represented in Calakmul long before we have evidence of Kanu'l rulers at the site, for Stela 43 (514 CE) shows two captives on its front side, one lying beneath the ruler's feet and another one crouching in front of him (Pincemin *et al.* 1998: Figure 9).

#### *Spolia* and their meaning

The extraction and reuse of monolithic sculpture has been widely documented in the Maya area. Several of the carved monuments at Calakmul were recovered in secondary contexts, as part of construction fill or reset in façades, such as a series of glyphic panels and the fragments of Stela 66 that stem from the ballcourt (Esparza Olguín and Valencia Rivera 2020: 170–179). The ballcourt seems to have undergone several modifications and might have its origins in the Early Classic (González 1995; Esparza Olguín and Valencia Rivera 2020: 170). This stela, which was probably inaugurated in 731, provides a *terminus post quem* for its final construc-



Figure 8. Chaahk fishing in waist-deep water and paddling in canoe. Incision on a bone from Tikal Burial 116 (drawing: John Montgomery).

tion phase. At other sites with close ties to Calakmul, such as Uxul (Grube *et al.* 2012: 34–37) and La Corona (Stuart *et al.* 2015: 5–6), similar practices of *spolia* resetting have been documented specifically in relation to ballplayer panels dating from the Kanu’l era. In all these cases, the resetting violated the integrity of the original texts by separating, mixing, and turning text and image portions. Nevertheless, they still conveyed meaning, frequently as indexes of a venerated past, since the pieces were carefully located in architectural key positions, as parts of staircases or, as in the case of Stela 66, in the corners of the ballcourt. Another interesting case is that of the fragment of Stela 27 from Naachtun, which shows the body of a woman from the waist to the feet. It was used as a tread stone in the first step of the stair of Structure XI-a of that site, maybe symbolizing the humiliation of the depicted individual in the manner of stepped-upon captives (Reese-Taylor *et al.* 2009: 59; Arredondo 2010: 395–399; 2013: 78–79; Mathews 2013: 93–94).

These cases make us wonder about additional symbolic meaning conveyed by the captive panel at the edge of the reservoir. A possible parallel for reset captive panels comes from the East Court of the palace at Palenque. The panels of House A may have been brought to the site from somewhere else, repurposed, and tagged as Janaab Pakal’s *ahal*, literally ‘victory’, but maybe better translated in this context as ‘spoils of war’ (D. Robertson 1973: 106; Baudez and Mathews 1979; M. Robertson 1985: 61–66; Spencer 2015: 255–257; Kupprat 2019: 220–221). Unfortunately, however, we are not aware of direct parallels for captive monuments set up around bodies of water, which is why we can only make some general assumptions about why it might have seemed appropriate to reuse the panel in this context.

As a starting point, we can consider the general semantic relationship between captives, as indices of war, violence, sacrifice, and watery environments. Water was not only a source of life, but also an otherworldly matter, an element of the dark realms of the afterlife (Kettunen and Helmke 2013). Thus, a pool like Aguada 2 might have been an appropriate place for (the carvings of) captives that had terminated their life cycles, commencing their transition to a place beyond. The potential fate of captives as sacrifices may also have been part of the message, since human sacrifices are well documented for other water sources, such as the Sacred Cenote at Chichen Itza (Tiesler 2005, also see Houston 2019).

Considering now the particularities of the placement of the panel, we might go one step farther. If the captive’s head indeed stuck out of the ground and the water rose close to the height of the inner wall, it might have evoked images of emerging from or sinking into water, maybe even drowning. Representations of bodies halfway submerged in water are

common in Classic Maya imagery. One of the most prominent sets of narrative images that feature this motif are found on Codex style vessels and represent scenes from Maize God mythology, interpreted as a deep-time prototype of warfare (Robicsek and Hales 1981: 80–82; Grube 2004: 118–127; Taube 2004: 74–76; García Barrios 2006; 2011: 85–87; Helmke and Kupprat 2016: 50–59). The so-called “confrontation scenes” show a group of Earth Warriors engaging the Maize God and his companions, an event that ultimately leads to the Maize God’s defeat (Fig. 7a). The confrontation takes place in an environment of shallow waters, an otherworldly *aguada* reminiscent of the mythological dark-water-places of the afterlife – here called ‘Seven Water Place’ – known from the inscriptions in the context of deep-time ballgames and the heroic deeds of the gods (see Stuart and Houston 1994: 71–73). On a painted sherd, the place is explicitly identified as the cave of Kanu’l (García Barrios and Carrasco Vargas 2006: 129–130, 136; García Barrios 2011: 86), a mythological, otherworldly place whose physical counterpart may have been in Dzibanche during the Classic period (Martin and Velásquez García 2016). In this same environment—after his defeat and subsequent reclamation of power—a group of women prepares the Maize God for his ultimate ascension, wherein he breaks through the surface of the earth (Taube 1985: 72, 181; Freidel *et al.* 1993: 92–94; Quenon and Le Fort 1997) (Fig. 7b). This mythological reconstruction provides a model for the cycle of life, including war, defeat, and resurrection, as a principle of sustenance and might allude to the archaeologically well-established relationship between water bodies, as portals to the otherworld, war, and sacrifice. Also, the cultural metaphor for dying, expressed in hieroglyphic texts as *och ha’* ‘entering the water’, might ultimately be related to this mythological complex (Helmke and Kupprat 2016: 47).

Another graphic parallel is a scene that shows the deity Chaahk wading in bodies of water and catching fish, depicted, for instance, on a set of incised bones recovered in Burial 116 at Tikal (Trik 1963: 13, fig. 6–7; also see Taube 2004: 76–78) (Fig. 8). A similar image was recently documented in the form of an Early Classic wall painting at Uxul, not far from Calakmul, where the unusual nakedness of the depicted figure evokes the canon of captive representations (Delvendahl and Grube 2015: 114–118). Furthermore, a Late Classic aspect of Chaahk was associated with warfare; the leader of the Earth Warriors in the confrontation scenes, Chak Xib, seems to be a specific aspect of this god (García Barrios 2009). Thus, to the pre-Hispanic spectator, submerging a captive who was also named after an aspect of Chaahk in a watery place may have had several symbolic layers related to warfare and sacrifice, Chaahk and Maize God mythology.



## Conclusions

The new captive panel is the first complete carving of this format known from Calakmul. Based on formal criteria, it probably formed part of a monumental program of façade sculpture, but the exact original location is unknown. The Great Acropolis at Calakmul and especially the buildings surrounding the North Plaza, where the ballcourt is located, are good candidates. Stylistically, the panel falls into the Late Classic period and thus is likely to have formed part of the Kanu'l-sponsored monumental discourse. The preserved portion of the hieroglyphic text probably renders the captive's name, but no inference can be made about his provenance or status.

The monument was found in a secondary architectural context, reused in the bulk of vertical slabs that formed the northern inner wall of Aguada 2. At present, the date of this construction has not been confirmed, although stylistic features and similarities with the Aguada Mucal wall point to a date no earlier than the Late Classic and possibly much later. We cannot say for sure if the act of incorporating a carved captive panel into the reservoir wall had a deeper intended meaning that would go beyond the strictly practical usefulness of a pre-cut, large, and relatively hard limestone slab for the construction, but there is evidence for visual prototypes and archaeological practices that make a meaningful placement plausible.

## Acknowledgements

We express our utmost gratitude to the National Science Foundation (grant BCS-2048440, Nicholas Dunning PI), the University of Calgary, the PAPIIT program at *Universidad Nacional Autónoma de México* (grants IA401021, IA401623), the Canadian Social Sciences and Humanities Research Council, University of Cincinnati, and *Universidad Autónoma de Campeche* for supporting this research. Mexico's *Instituto Nacional de Antropología e Historia* (INAH) and *Comisión Nacional de Áreas Naturales Protegidas* (CONANP) have generously extended research permits and support us with infrastructure. Lidar data was acquired in collaboration with the National Center for Airborne Laser Mapping, University of Houston. We also thank Rogelio Valencia Rivera, Alejandro Garay Herrera, Simon Martin, Adriana Velázquez Morlet, and two anonymous reviewers for providing useful comments that have enriched this article.

Last but certainly not least we express our deep gratitude to all current and past members of the Yaxnohcah and Bajo El Laberinto Archaeological Projects, most importantly our collaborators from Concepción, Constitución, Pablo García, and Conhuas, without whom we would not have been able to conduct any research.

## References cited

Arredondo Leiva, Ernesto

2010 Archaeological Investigations of a Walled Compound at Naachtun, Peten, Guatemala: Architecture, Politics and Warfare. PhD diss., La Trobe University, Bundoora.

2013 "Excavaciones en la Estructura VIII del Complejo Amurallado." In *Proyecto Arqueológico Naachtun 2004–2009: Informe No. 2, Segunda temporada de campo en el sitio arqueológico Naachtun*, edited by Martín Rangel Guillermo and Kathryn Reese-Taylor, 70–90. Mesoweb. <https://www.mesoweb.com/resources/informes/Naachtun2005.pdf> (01.03.2023)

Baudez, Claude F.

2004 "Los cautivos mayas y su destino." In *Los cautivos de Dzibanché*, edited by Enrique Nalda, 57–77. México, D.F.: Instituto Nacional de Antropología e Historia.

Baudez, Claude F., and Peter Mathews

1979 "Capture and Sacrifice at Palenque." In *Tercera Mesa Redonda de Palenque*, edited by Merle Greene Robertson and Donnan Call Jeffers, 31–40. Monterey: Pre-Columbian Art Research Center.

Burdick, Catherine E.

2016 "Held Captive by Script: Interpreting Tagged Prisoners in Late Classic Maya Sculpture." *Ancient Mesoamerica* 27: 31–48.

Chmilar, Jennifer, and Nicholas Dunning

2019 "Excavaciones en la Aguada Mucal: Operación 25." In *Proyecto Arqueológico Yaxnohcah, Informe de las temporadas de investigación 2017–18*, edited by Verónica Amellali Vázquez López, Armando Anaya Hernández, and Kathryn Reese-Taylor, 171–186. Calgary: Proyecto Arqueológico Yaxnohcah.

Colas, Pierre Robert

2004 *Sinn und Bedeutung klassischer Maya-Personennamen: Typologische Analyse von Anthroponymphrasen in den Hieroglypheninschriften der klassischen Maya-Kultur als Beitrag zur allgemeinen Onomastik*. Acta Mesoamericana 15. Markt Schwaben: Verlag Anton Saurwein.

Delvendahl, Kai and Nikolai Grube

2015 „Tempel des Wassergottes und Palast der Schlangenkönige: Die Chronologie des Gebäudes K2 von Uxul, Campeche.“ In *Mesoamerikanistik: Archäologie, Ethnohistorie, Ethnographie und Linguistik*, edited by Lars Frühsorge, Meike Böge, Christian Brückner, Miriam Heun, Jenny Leubuh-Chhetri, and Dirk Tiemann, 108–138. Aachen: Shaker.

Domínguez Carrasco, María del Rosario, and William J. Folan

1996 "Calakmul, México: Aguadas, bajos, precipitación y asentamiento en el Petén Campechano." In *IX Simposio de Investigaciones Arqueológicas en Guatemala, 1995*, edited by Juan Pedro Laporte and Héctor Escobedo, 147–173. Guatemala: Museo Nacional de Arqueología y Etnología.

Earley, Caitlin C.

2023 "Warfare, Sacrifice, and the Captive Body in Late Classic Maya Sculpture." *Ancient Mesoamerica* 34(1): 249–265.

Folan, William J., Laraine A. Fletcher, Jacinto May Hau, and Lynda Florey Folan, eds.

2001 *Las ruinas de Calakmul, Campeche, México: un lugar central y su paisaje cultural*. Campeche: Universidad Autónoma de Campeche.

Freidel, David A., Linda Schele, and Joy Parker

1993 *Maya Cosmos: Three Thousand Years on the Shaman's Path*. New York: William Morrow.

García Barrios, Ana

2006 "Confrontation Scenes on Codex-Style Pottery: An Iconographic Review." *Latin American Indian Literatures Journal* 22(2): 129–152.

2009 "El aspecto bélico de Chaahk, el dios de la lluvia, en el Periodo Clásico maya." *Revista Española de Antropología Americana* 39(1): 7–29.

2011 "Análisis iconográfico preliminar de fragmentos de las vasijas estilo códice procedentes de Calakmul." *Estudios de Cultura Maya* 37: 65–97.

García Barrios, Ana, and Ramón Carrasco Vargas

2006 "Algunos fragmentos cerámicos de estilo códice procedentes de Calakmul." *Los Investigadores de la Cultura Maya* 14(1): 126–136.

Graham, Ian, Lucia R. Henderson, Peter Mathews, and David Stuart

2006 *Corpus of Maya Hieroglyphic Inscriptions, Volume 9 Part 2*. Cambridge: Peabody Museum of Archaeology and Ethnology, Harvard University.

Graham, Ian, and Peter Mathews

1996 *Corpus of Maya Hieroglyphic Inscriptions, Volume 6 Part 2*. Cambridge: Peabody Museum of Archaeology and Ethnology, Harvard University.

1999 *Corpus of Maya Hieroglyphic Inscriptions, Volume 6 Part 3*. Vol. 6–3. Cambridge: Peabody Museum of Archaeology and Ethnology, Harvard University.

González, Emily

1996 "La encrucijada de la Estructura XIII de Calakmul, Campeche." In *Informe técnico del Proyecto Arqueológico de la Biosfera de Calakmul, subproyectos y estudios especiales*, 70–78. Mérida: Instituto Nacional de Antropología e Historia.

Gronemeyer, Sven

2013 *The Monuments and Inscriptions of Tamarindito, Peten, Guatemala*. Acta Mesoamericana 25. Markt Schwaben: Anton Saurwein.

- Grube, Nikolai  
1990 *Die Entwicklung der Mayaschrift : Grundlagen zur Erforschung des Wandels der Mayaschrift von der Protoklassik bis zur spanischen Eroberung*. Acta Mesoamericana 3. Berlin: Von Flemming.
- 2002 "Onomástica de los gobernantes mayas." In *La organización social entre los mayas: memoria de la Tercera Mesa Redonda de Palenque*, edited by Vera Tiesler, Rafael Cobos, and Merle Greene Robertson, 321–353. Mexico City: Instituto Nacional de Antropología e Historia, Universidad Autónoma de Yucatán.
- 2003 Hieroglyphic Inscriptions from Northwest Yucatán: An Update of Recent Research. In *Escondido en la selva*, edited by Hanns J. Prem, 339–370. Mexico City: Universität Bonn, Instituto Nacional de Antropología e Historia.
- 2004 "El origen de la dinastía Kaan." In *Los cautivos de Dzibanché*, edited by Enrique Nalda, 117–131. Mexico City: Instituto Nacional de Antropología e Historia.
- Grube, Nikolai, Kai Delvendahl, Nicolaus Seefeld, and Benjamino Volta  
2012 "Under the Rule of the Snake Kings: Uxul in the 7th and 8th Century." *Estudios de Cultura Maya* 40: 11–49.
- Helmke, Christophe, and Jaime J. Awe  
2016 "Death Becomes Her: An Analysis of Panel 3, Xunantunich, Belize." *The PARI Journal* 16(4): 1–14.
- Helmke, Christophe, and Felix Kupprat  
2016 "Where Snakes Abound: Supernatural Places of Origin and Founding Myths in the Titles of Classic Maya Kings." In *Places of Power and Memory in Mesoamerica's Past and Present: How Sites, Toponyms and Landscapes Shape History and Remembrance*, edited by Daniel Graña-Behrens, 33–83. Estudios Indiana 9. Berlin: Ibero-Amerikanisches Institut, Gebr. Mann.
- Houston, Stephen D.  
2016 Gladiatrix. Maya Decipherment: Ideas on Ancient Maya Writing and Iconography. <https://mayadecipherment.com/2016/06/08/gladiatrix/> (28.02.2023)
- 2019 Watery War. Maya Decipherment: Ideas on Ancient Maya Writing and Iconography. <https://mayadecipherment.com/2019/06/17/watery-war/> (28.02.2023)
- Houston, Stephen D., and David Stuart  
1998 "The Ancient Maya Self: Personhood and Portraiture in the Classic Period." *RES: Anthropology and Aesthetics* 33: 73–101.
- Houston, Stephen D, David Stuart, and Karl A Taube  
2006 *The Memory of Bones: Body, Being, and Experience among the Classic Maya*. Austin: University of Texas Press.
- Houston, Stephen, and David Stuart  
1996 "Of Gods, Glyphs and Kings: Divinity and Rulership among the Classic Maya." *Antiquity* 70: 289–312.
- Kettunen, Harri, and Christophe Helmke  
2013 "Water in Maya Imagery and Writing." *Contributions in New World Archaeology* 5: 17–38.
- Kupprat, Felix  
2019 "Dos escenarios para la recreación del mito: el Patio Este y la Casa E del Palacio en Palenque." *Revista Española de Antropología Americana* 49: 217–238.
- Marcus, Joyce  
1974 "The Iconography of Power among the Classic Maya." *World Archaeology* 6(1): 83–94.
- Marcus, Joyce, and William Folan  
1994 "Una estela más del siglo V y nueva información sobre Pata de Jaguar, gobernante de Calakmul, Campeche, en el siglo VII." *Gaceta Universitaria* 4(15–16): 21–26.
- Martin, Simon  
1997 "The Painted King List: A Commentary On Codex-Style Dynastic Vases." In *The Maya Vase Book. Volume 5*, edited by Justin Kerr and Barbara Kerr, 847–867. New York: Kerr Associates.
- 1998 "Investigación epigráfica de campo: 1995–1998." In *Proyecto Arqueológico Calakmul: Informe de los trabajos arqueológicos, Temporada 1997–1998*, edited by Ramón Carrasco Vargas, 81–145. Campeche: Instituto Nacional de Antropología e Historia.
- 2005 "Of Snakes and Bats: Shifting Identities at Calakmul." *The PARI Journal* 6(2): 5–15.
- Martin, Simon, and Dmitri Beliaev  
2017 "K'ahk' Ti' Ch'ich' : A New Snake King from the Early Classic Period." *The PARI Journal* 17(3): 1–7.
- Martin, Simon, and Nikolai Grube  
2008 *Chronicle of the Maya Kings and Queens: Deciphering the Dynasties of the Ancient Maya*. London: Thames & Hudson.
- Martin, Simon, and Erik Velásquez García  
2016 "Politics and Places: Tracing the Toponyms of the Snake Dynasty." *The PARI Journal* 17(2): 23–33.
- Mathews, Peter  
2013 "Análisis epigráfico de las estelas 26 y 27 de Naachtun." In *Proyecto Arqueológico Naachtun 2004–2009. Informe No. 2, Segunda temporada de campo en el sitio arqueológico Naachtun*, edited by Martin Rangel Guillermo and Kathryn Reese-Taylor, 91–97. Mesoweb. <https://www.mesoweb.com/resources/informes/Naachtun2005.pdf> (01.03.2023)
- Miller, Mary  
2002 "The Willfulness of Art: The Case of Bonampak." *RES: Anthropology and Aesthetics* 42: 8–23.
- Miller, Mary Ellen, and Simon Martin  
2004 *Courtly Art of the Ancient Maya*. San Francisco, New York: Fine Arts Museums of San Francisco, Thames & Hudson.
- Nalda, Enrique, ed.  
2004 *Los cautivos de Dzibanché*. Mexico City: Instituto Nacional de Antropología e Historia.
- Pincemin, Sophia, Joyce Marcus, Linda Florey Folan, William J. Folan, María del Rosario Domínguez Carrasco, and Abel Morales López  
1998 "Extending the Calakmul Dynasty Back in Time: A New Stela from a Maya Capital in Campeche, Mexico." *Latin American Antiquity* 9(4): 310–327.
- Quenon, Michel, and Geneviève Le Fort  
1997 "Rebirth and Resurrection in Maize God Iconography." In *The Maya Vase Book. Volume 5*, edited by Justin Kerr and Barbara Kerr, 884–902. New York: Kerr Associates.
- Reese-Taylor, Kathryn, Peter Mathews, Julia Guernsey, and Marlene Fritzier  
2009 "Warrior Queens among the Classic Maya." In *Blood and Beauty: Organized Violence in the Art and Archaeology of Mesoamerica and Central America*, edited by Heather Orr and Rex Koontz, 39–72. Los Angeles: Cotsen Institute of Archaeology Press.
- Robertson, Donald  
1974 "Some Remarks on Stone Relief Sculpture at Palenque." In *Primera Mesa Redonda de Palenque, Part II*, edited by Merle Greene Robertson, 103–108. Pebble Beach: Robert Louis Stevenson School.
- Robertson, Merle Greene  
1985 *The Sculpture of Palenque. Volume III: The Late Buildings of the Palace*. Princeton: Princeton University Press, J. Paul Getty Trust.
- Robicsek, Francis, and Donald M. Hales  
1981 *The Maya Book of the Dead: The Ceramic Codex: The Corpus of Codex Style Ceramics of the Late Classic Period*. Charlottesville: University of Virginia Art Museum.
- Ruiz González, Judith L.  
2021 *Toniná, una ciudad maya de Chiapas: Vida y muerte en las postrimerías del colapso maya*. Paris Monographs in American Archaeology 54. Oxford: Archaeopress.
- Seefeld, Nicolaus Paul  
2017 "The Hydraulic System of Uxul: Origins, Functions, and Social Setting". PhD diss., Rheinische Friedrich-Wilhelms-Universität, Bonn.
- Spencer, Kaylee R.  
2015 "Locating Palenque's Captive Portraits: Space, Identity, and Spectatorship in Classic Maya Art." In *Maya Imagery, Architecture, and Activity: Space and Spatial Analysis in Art History*, edited by Maline D. Werness-Rude and Kaylee R. Spencer, 229–270. Albuquerque: University of New Mexico Press.
- Stuart, David, Marcello A. Canuto, and Tomás Barrientos Q.  
2015 "The Nomenclature of La Corona Sculpture." *La Corona Notes* 1(2).
- Stuart, David, and Stephen D. Houston  
1994 *Classic Maya Place Names*. Studies in Pre-Columbian Art and Archaeology 33. Washington, D.C.: Dumbarton Oaks Research Library and Collection.
- Taube, Karl  
1985 "The Classic Maya Maize God: A Reappraisal." In *Fifth Palenque Round Table*, edited by Merle Greene Robertson and Virginia M. Fields, 171–181. San Francisco: Pre-Columbian Art Research Institute.
- 2004 "Flower Mountain: Concepts of Life, Beauty and Paradise Among the Classic Maya." *RES: Anthropology and Aesthetics* 45: 69–98.
- Taube, Karl, and Marc Zender  
2009 "American Gladiators: Ritual Boxing in Ancient Mesoamerica." In *Blood and Beauty: Organized Violence in the Art and Archaeology of*

*Mesoamerica and Central America*, edited by Heather Orr and Rex Koontz, 161–220. Los Angeles: Cotsen Institute of Archaeology Press.

Tiesler, Vera

2005 “What Can the Bones Really Tell us? The Study of Human Skeletal Remains From Cenotes.” In *Stone Houses and Earth Lords: Maya Religion in the Cave Context*, edited by Keith M. Prufer and James E. Brady, 341–363. Boulder: University Press of Colorado.

Triq, Aubrey S.

1963 “The Splendid Tomb of Temple I at Tikal, Guatemala.” *Expedition* 6(1): 3–18.

Esparza Olguín, Octavio Quetzalcóatl, and Rogelio Valencia Rivera

2020 “La recolocación de monumentos dentro del juego de pelota como mecanismo de activación ritual durante el periodo Clásico maya.” *Journal de la société des américanistes* 106(1): 157–186.

Velásquez García, Erik

2004 “Los escalones jeroglíficos de Dzibanché.” In *Los cautivos de Dzibanché*, edited by Enrique Nalda, 78–103. Mexico City: Instituto Nacional de Antropología e Historia.

Żrańka, Jarosław, and Bernard Hermes

2012 “Great Development in Troubled Times: The Terminal Classic at the Maya Site of Nakum, Peten, Guatemala.” *Ancient Mesoamerica* 23: 161–187.

### Endnote

1. We thank Alejandro Garay Herrera for this acute suggestion.

**ABSTRACT:** During our 2022 field season at Calakmul we discovered a carved stone panel depicting a bound captive accompanied by three eroded glyph blocks that probably rendered the individual’s name. The monument was integrated into a stone wall at the northern edge of Aguada 2, but it is likely that this was not its original location. According to stylistic markers, the

panel was produced during the Late Classic period (600–900 CE). However, it is unclear when it was reused as a construction block. Its final resetting at the edge of a reservoir may have had additional meaning related to mythological complexes that reflect associations among bodies of water, warfare, death, and sacrifice.

**RESUMEN:** En 2022, durante nuestra temporada de campo en Calakmul, se halló un tablero de piedra esculpido que muestra un cautivo amarrado, así como tres bloques jeroglíficos erosionados que probablemente representaban el nombre del individuo. El monumento había sido integrado en un muro que define la orilla norte de la Aguada 2, pero es posible que esta no fuera su ubicación original. De acuerdo con sus rasgos estilísticos, el tablero se elaboró durante el periodo Clásico Tardío (600–900 d.C.), mientras que se desconoce cuándo fue reutilizado como piedra de construcción. Su reubicación en la orilla de la aguada pudo tener un significado adicional relacionado con complejos mitológicos que reflejan las asociaciones entre cuerpos de agua, la guerra, la muerte y el sacrificio.

**ZUSAMMENFASSUNG:** Während unserer Grabungskampagne 2022 in Calakmul dokumentierten wir eine steinerne Relieftafel, welche einen gefesselten Gefangenen sowie drei erodierte Glyphenblöcke abbildet. Das Monument war in eine Mauer integriert worden, die die Nordseite der Aguada 2 bildet, doch wahrscheinlich war dies nicht sein ursprünglicher Standort. Stilistischen Merkmalen nach zu urteilen ist die Relieftafel in die Spätklassik zu datieren (600–900 n. Chr.), während jedoch der Zeitpunkt ihrer Wiederverwendung als Bauelement noch unklar ist. Möglicherweise hatte der neue Kontext eine weitere Bedeutungsebene, welche mit mythologischen Motiven zusammenhängt, die symbolische Verknüpfungen zwischen Wasser, Krieg, Tod, und Opfer herstellen.

Manuscript received: March 22, 2023

Manuscript accepted: August 10, 2023

Corresponding author Email: kupprat@unam.mx

## Sourcing of Obsidian from the Late Postclassic Site of Placencia Village, Belize

Rebecca J. Appert and E. Cory Sills

Due to the ubiquity of obsidian found at archaeological sites in the Maya area, obsidian is frequently used to study ancient Maya long-distance trade from the Preclassic (1800–300 BC) to the Postclassic (AD 900–1550) periods (Aoyama and Munson 2012: 35–40; Glover et al. 2018: 489–490; Healy et al. 1984: 414–417; McKillop 1995: 167–173, 1996: 53–57; Rice 1984: 191–194; Silva de la Mora 2018: 583–586). The ability to source obsidian, found in elite and commoner households, by its chemical composition makes the material helpful in reconstructing trade patterns. Late Postclassic (AD 1250–1550) obsidian trade has been examined to identify workshops, trade routes, trade centers, and economic power centers as most obsidian found at sites originates from the volcanic regions of Guatemala (Braswell 2003: 152–153; Masson and Chaya 2000: 142; Masson and Lope 2014; Stemp 2011: 135–137). The variability in source use in the Late Postclassic from the Guatemalan obsidian sources of El Chayal, Ixtepeque, and San Martín Jilotepeque as well as Mexican sources changes through time and geographical proximity which is useful for reconstructing trade (Braswell 2003: 152–155; Horowitz 2022: 14; Rice and Cecil 2009: 337–338; Stemp 2011: 135–137) (Fig. 1). This article examines the role of Pla-

ciencia Village, a coastal settlement, in obsidian trade during the Late Postclassic period by sourcing obsidian found in excavations using portable x-ray fluorescence (PXRF) (Fig. 2).

Previous Late Postclassic obsidian sourcing studies on the coast and cays of Belize and Mexico have identified Ixtepeque as the primary source (Masson and Chaya 2000: 139–140; Nelson et al. 1983: 216; Seidita et al. 2018: 172; Stemp 2011: 143). Other sources such as El Chayal and San Martín Jilotepeque and obsidian from Mexico are present but usually in less quantities than Ixtepeque (McKillop 1995: Table 29; Stemp 2011: 143). However, there are variations in the quantity of each source at coastal sites. These variations are important for reconstructing trade and communities’ access to nonlocal materials.

The obsidian used in this study is from an existing collection that was excavated by the late Dr. Jeff MacKinnon, director of the Point Placencia Archaeology Project. Revisiting and analyzing legacy collections is important due to advances in research methods, technologies, and changing cultural and economic frameworks as well as maintaining stewardship of collections and materials. The PXRF analysis of the Placencia Village legacy obsidian presented an oppor-

en las haciendas de Campeche en 1790, pp. 16–23; Rivero Canto, Raúl: *Evolución arquitectónica de los oratorios en la península de Yucatán, del siglo XVI al XXI*, pp. 24–33; Victoria Ojeda, Jorge: *La iglesia del Santo Nombre de Jesús para africanos y sus descendientes en Campeche y Mérida*, pp. 34–41

Núm. 32 (Junio 2022)

Cahuich Campos, Martha Beatriz, Alejandra Borbolla Vázquez and Juana Elizabeth Ángeles Monreal: *Lo que no pudo ser: Sueños no materializados de los caminos férreos en Campeche*, pp. 6–13; Rodríguez Espinoza, María Guadalupe, Elvia Flores Flores and Fernando Isaac Sánchez Carballido: *Lo que sí fue: Sueños materializados de los caminos férreos en Campeche*, pp. 14–21; Marcial Gutiérrez, Silvia Teresa: *Los tranvías de la ciudad de Campeche, caso exitoso de un medio de transporte público durante el Porfiriato y su impacto en la vida cotidiana (1883–1938)*, pp. 22–31; Ojeda Mas, Heber: *Algunos datos sobre el tranvía urbano que circuló sobre la calle 10 de la ciudad de Campeche, México*, pp. 32–39

Núm. 33 (Septiembre 2022)

Sánchez Moo, Wilberth Gabriel: *Ruta de propagación y sobremortalidad de la epidemia de viruela de 1793 en Campeche*, pp. 6–11; Leyva Gutiérrez, Nancy Selene: *La epidemia de viruela de 1798 y la variolización en Santiago del Saltillo*, pp. 12–17; Torres Rosas, Víctor: *El tifo en el noroeste del actual Estado de México: endemia y epidemia, 1805–1814*, pp. 18–27; Escobar Quintana, Osmar Alberto: *El cólera de 1833 en la ciudad de Chihuahua. Una mirada desde la salud pública*, pp. 28–35; Alcalá Ferráez, Carlos: *Viruela y vacunas durante la primera mitad del siglo XIX: Algunos apuntes sobre la ciudad de Campeche*, pp. 36–43; Wan Moguel, Ricardo Manuel: *La fiebre amarilla en el partido de Mérida (1875–1878)*, pp. 44–51

Núm. 34 (Diciembre 2023),

Ojeda Mas, Heber: *La recuperación de la arquitectura del lado sur de la torre central del edificio A-1 de Dzibilnocac, Campeche*, pp. 6–16; Suárez Aguilar, Vicente: *Registro y exploración de sitios arqueológicos en el suroeste de Campeche, entre Escárcega y Candelaria*, pp. 16–25; García, Azael: *La presencia del tocado Cocodrilo-Serpiente en la zona Puuc*, pp. 26–37; Uc González, Eunice and Raúl Andrés Morales Uh: *Arqueología de la región Ah Canul occidental de Yucatán*, pp. 38–47; Reyes Solís, José Antonio and Enrique Terrones González: *Investigaciones arqueológicas en contextos subterráneos de Quintana Roo derivadas de la atención a denuncias: el caso de la cueva Tapir en el predio del Grupo Xcaret, Quintana Roo*, pp. 48–57; Benavides Castillo, Antonio: *Una mujer del occidente de México*, pp. 58–63; Domínguez Carrasco, María del Rosario: *La formación arqueológica y antropológica en la Universidad Autónoma de Campeche*, pp. 64–69

Núm. 35 (Marzo 2023)

Reyes Trujeque, Javier, Helena Barba Meinecke, Mayra Manrique Ortega and Isabel Silva León: *Métodos analíticos aplicados al estudio de artefactos metálicos provenientes de ambientes subacuáticos*, pp. 6–13; Barba-Meinecke, Helena, Javier Reyes Trujeque, Diana Elizabeth, Arano Recio, Isabel Silva León and Mayra Manrique Ortega: *Estudio de los materiales metálicos del pecio Ancla Macuca, arrecife Alacranes*, pp. 14–21; Barba Meinecke, Helena, Javier Reyes Trujeque, Abiud Pizá Chávez and Gabriel Quetz León: *Estudio de metales procedentes del pecio Vapor La Unión (1861), Sisal, Yucatán*, pp. 22–31; Ramírez-Cano, Jorge Alberto, Araceli Espinoza-Vázquez, Andrés Carmona-Hernández, Francisco Javier Rodríguez-Gómez,

Ricardo Galván-Martínez and Ricardo Orozco-Cruz: *Aplicación de técnicas electroquímicas en el estudio y protección de la corrosión en metales de interés histórico*, pp. 32–43; González Sánchez, Jorge, Luis Dzib Pérez and Ildefonso Esteban Pech Pech: *Un enfoque metalúrgico y electroquímico para el estudio de los metales históricos*, pp. 44–49; Pech Pech, Ildefonso Esteban and Yolanda Espinosa Morales: *La nanotecnología en la conservación del patrimonio cultural subacuático*, pp. 50–56; Benavides Castillo, Antonio, Sara Novelo Osorno and Carlos Pallán Gayol: *Suplemento: El tiempo de las portadas jeroglíficas en la región del Puuc*, pp. 56–71

Núm. 36 (Junio 2023)

Ramayo Lanz, Teresa: *Los chicleros mayas de los Chenes, Campeche*, pp. 6–11; Vadillo López, Claudio de Jesús: *Campamento chiclero y vida cotidiana en la empresa The Laguna Corporation 1890–1953 en la región de Laguna de Términos, Campeche*, pp. 12–17; Morón Ríos, Alejandro: *El chicle, la botánica y la arqueología en el sur del estado de Campeche*, pp. 20–27; Dzib Can, Ubaldo: *Dependencia, extractivismo y crisis de la economía chiclera en 1890–1947*, pp. 28–35; Avilez Tax, Gilberto: *De fronteras y puertas a la Montaña chiclera al sur de Yucatán*, pp. 36–43; Luengo Gutiérrez, Pedro: *Suplemento: Campeche imaginada. Investigación y divulgación*, pp. 44–49

IMPRESSUM	mexicon www.mexicon.de	ISSN 0720–5988
-----------	---------------------------	----------------

**General Editors:** Nikolai Grube (Abteilung für Altamerikanistik, Universität Bonn, Germany; email: ngrube@uni-bonn.de), Thomas H. Guderjan (University of Texas at Tyler, USA; email: tguderjan@uttyler.edu).

**Editors:** Annkatrin Benz, Yannick Dreesen, Alejandro J. Garay Herrera, Peggy Goede Montalván, Antje Grothe, Stephan Günther, Karl Herbert Mayer, Stephan Merk, Iken Paap, Christian Prager, Anton Saurwein, Vera Tiesler, Dominick Van den Notelaer, Elisabeth Wagner, Gordon Whittaker.

**Publisher:** Verlag Anton Saurwein (Gatterburgstr. 15, 80689 München, Germany; email: publisher@mexicon.de).

**Editorial Offices:**

*Cover* Alejandro J. Garay Herrera (email: cover@mexicon.de), Iken Paap. *News* Dominick Van den Notelaer (email: news@mexicon); Thomas Ruhl, Yannick Dreesen, Gordon Whittaker.

*Contributions* Nikolai Grube (email: contributions@mexicon.de).

mexicon is a peer-reviewed journal. Submissions are encouraged. Responsibility for accepted materials and their contents lies with the author(s) alone. By submitting your contribution you are certifying that you have permission to publish all material therein. Copyright for all published materials (printed and electronic) is held by mexicon.

*Bibliography* Anton Saurwein (email: bibliography@mexicon.de); Harald Grauer, Antje Grothe, Stephan Merk, Iken Paap, Edith Specht, Vera Tiesler, Dominick Van den Notelaer.

*Austrian Office* Karl Herbert Mayer (email: mexicon.at@mexicon.de).

*Mexican Office* Vera Tiesler (email: mexicon.mx@mexicon.de).

*US Office* Elizabeth C. Sills (email: mexicon.us@mexicon.de).

*Online Editor* Iken Paap (email: web-master@mexicon.de).

*Social Media Manager* Peggy Goede Montalván (facebook@mexicon.de).

**Annual Subscription:**

www.mexicon.de/shop

Germany EUR 36,00 (inkl. MwSt. und Zustellung); Europe EUR 40,00; Overseas US \$50.00 (incl. airmail delivery).

Der Vertrieb erfolgt nur im Jahresabonnement geschlossener Volumen; zurückliegende Jahrgänge sind erhältlich.

Abonnementbetreuung und Versand durch den Verlag.

mexicon is available only by annual volume subscription (six issues); back issues are available. To subscribe, change an address, or order back issues, please write to the publisher or visit our online shop at mexicon.de.

Satz: Stephan Günther

Druck: Karle GmbH, Möckmühl